

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A humidification system for providing substantially micro-organism free water vapor into an airflow conduit flowing a quantity of air therethrough, said system comprising:

a vessel for containing a quantity of water, wherein the water contains micro-organisms, said vessel including an inlet valve for admitting water into said vessel;

an oven for containing said vessel and heating said water to a temperature, and for a duration, sufficient to at least substantially remove said micro-organisms and to generate a substantially micro-organism free steam; ~~and~~

a vapor outlet conduit for channeling said substantially micro-organism free steam into said airflow conduit to humidify said air flowing through said airflow conduit; and

a controller for controlling said drain valve and said inlet valve, and for turning on and off said microwave oven, said controller further controlling said drain valve such that an entire quantity of heated water is drained from said vessel before said controller causes said inlet valve to admit a fresh quantity of water into said vessel.

2. Cancelled.

3. (Original) The system of claim 1, wherein said oven comprises a microwave oven.

4. (Currently Amended) The system of claim 1, further comprising a water drain line in communication with said vessel for allowing said quantity of water to be drained from said vessel, said water drain line housing said drain valve.

5. (Original) The system of claim 4, further comprising a vacuum accumulator in communication with said water drain line for assisting in withdrawing said quantity of water from said vessel through said water drain line, and at least temporarily containing said quantity of water.

6. (Original) The system of claim 1, further comprising a water supply conduit in communication with said vessel for supplying said quantity of water to said vessel.

7. Cancelled.

8. Cancelled.

9. (Original) The system of claim 1, further comprising a humidity sensor in communication with the vapor outlet conduit for detecting a level of humidity in said air flowing in said airflow conduit.

10. (Original) The system of claim 1, further comprising a vapor injection nozzle for receiving said substantially micro-organism free steam from said vapor outlet conduit and dispersing same into said air flowing through said airflow conduit.

11. (Original) The system of claim 10, wherein said vapor injection nozzle comprises:

a plurality of vanes, said vanes being subject to said air flowing through said airflow conduit such that said vanes cause said air flowing in said airflow conduit to swirl to thus help in dispersing and intermixing said substantially micro-organism free steam with said air.

12. (Original) The system of claim 1, further comprising a water overflow conduit in communication with said vessel for receiving any of said water contained in said vessel that overflows from said vessel during heating of said water by said oven.

13. (Original) The system of claim 1, wherein said water overflow conduit includes a pressure relief valve for allowing a flow of said water through said water overflow conduit only when a predetermined pressure is reached in said water overflow conduit.

14. (Original) The system of claim 1, further comprising:

a pressure regulating valve disposed in said airflow conduit for regulating a flow of said steam into said airflow conduit and maintaining a pressure of said steam at a pressure present in said airflow conduit.

15. (Currently Amended) A system for humidifying air being supplied within a confined area, said system comprising:

an airflow conduit for providing a flow of air into said confined area;

a vessel for containing a quantity of water, wherein the water contains micro-organisms;

an oven for heating said water in said vessel to a temperature, and for a duration, sufficient to at least substantially remove said micro-organisms and to generate a substantially micro-organism free steam; and

a vapor injection system for injecting said substantially micro-organism free steam into said airflow conduit and assisting in mixing said substantially micro-organism free steam with said air flowing through said airflow conduit to humidify said air; and

a controller for draining an entire quantity of heated water within said vessel after a heating cycle before causing a fresh quantity of water to be admitted into said vessel.

16. Cancelled.

17. (Original) The system of claim 15, wherein said oven comprises a microwave oven.

18. (Original) The system of claim 15, further comprising a water supply conduit for supplying said quantity of water to said vessel.

19. (Currently Amended) The system of 18, further comprising:
a valve disposed in said water supply conduit; and
a wherein said controller ~~for controlling~~ controls said valve to admit only said quantity of water into said vessel, said quantity representing a volume of water sufficient to fill said vessel to a desired level.

20. (Original) The system of claim 15, further comprising a water drain conduit for draining water from said vessel.

21. (Original) The system of claim 20, further comprising a valve disposed in said water drain conduit for controlling a draining of water from said vessel.

22. Cancelled.

23. (Original) The system of claim 15, further comprising a water overflow conduit in communication with said vessel for draining water that rises above a predetermined level in said vessel, from said vessel.

24. (Original) The system of claim 15, further comprising a humidity sensor for sensing a level of humidity in said air flowing in said airflow conduit.

25. (Original) The system of claim 15, further comprising a water level sensor for sensing a level of water in said vessel.

26. (Original) The system of claim 15, further comprising a vacuum accumulator in communication with said vessel for assisting in draining said water from said vessel after said water has been heated for a predetermined time.

27. (Original) The system of claim 15, wherein said vapor injection system comprises:

a vapor outflow conduit in communication with said vessel; and

a plurality of vanes disposed in a path of said air flowing through said airflow conduit to cause a swirling of said air flowing in said airflow conduit to assist in dispersing said substantially micro-organism free steam into said air.

28. (Original) The system of claim 15, further comprising;

a pressure regulator valve for regulating a pressure of said steam entering said airflow conduit.

- 29. Cancelled
- 30. Cancelled
- 31. Cancelled
- 32. Cancelled
- 33. Cancelled
- 34. Cancelled
- 35. Cancelled
- 36. Cancelled
- 37. Cancelled